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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,921	10/23/2003	Yvan A. Couillais	60,152-990	1616
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HOWARD & HOWARD ATTORNEYS, P.C. THE PINEHURST OFFICE CENTER, SUITE #101 39400 WOODWARD AVENUE BLOOMFIELD HILLS, MI 48304-5151				
			EXAMINER SHARP, JEFFREY ANDREW	
			ART UNIT 3677	PAPER NUMBER

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,921

Applicant(s)

COUILLAIS ET AL.

Examiner

Jeffrey Sharp

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/23/03 & 10/25/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 3-20 is/are allowed.
- 6) ☒ Claim(s) 21, 24 and 25 is/are rejected.
- 7) ☒ Claim(s) 22 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

**THIS ACTION IS RESPONSIVE TO AMENDMENT AND REMARKS RECIEVED 25
OCTOBER 2004, REGARDING FIRST OFFICE ACTION DATED 27 AUGUST 2004**

DETAILED ACTION

Status of Claims

[1] Claims 1 and 3-25 are pending.

Response to Arguments

[2] Applicant's arguments with regard to the rejection of claims 1, 2, and 4, filed 25 October 2004, with respect to the Foss '942 reference have been fully considered and are persuasive. The amendment of claim 1 to read "*formed of a deformable metal*" and the addition of the more meaningful descriptor "*double-sided clinch-type fastener*" defines over the element shown in the Foss '942 patent. Rejection of claims 1, 2, and 4 over the Foss '942 reference has been withdrawn.

[3] Applicant's arguments with regard to the rejection of claims 1, 2, and 4, filed 25 October 2004, with respect to the Lee '104 reference have been fully considered and are persuasive. The amendment of claim 1 to read "*formed of a deformable metal*" and the addition of the more meaningful descriptor "*double-sided clinch-type fastener*" defines over the Lee '104 patent. The

Lee '104 reference is symmetrical about a longitudinal axis of the bore, but is not "*symmetrical along and about a longitudinal axis of said bore*" as amended. Rejection of claims 1, 2, and 4, over the Lee '104 reference has been withdrawn.

[4] Applicant's arguments with regard to the obviousness rejection of claims 1, 2, and 4, filed 25 October 2004, with respect to the Double et al. '424 and Kann '695 references have been fully considered and are persuasive. Neither Kann nor Double et al. teach a symmetrical fastener along and about the bore's longitudinal axis. Obviousness rejection of claims 1, 2, and 4, over the Double et al. '424 and Kann '695 references has been withdrawn.

[5] Applicant's arguments with regard to the rejection of claims 16-20, filed 25 October 2004, with respect to the Double et al. '424 reference have been fully considered and are persuasive. The amendment to claim 16 defines a method for the use of a novel symmetrical clinch-type fastener. Since the method requires the novel fastener, the method to use the fastener is novel. Rejection of claims 16-20 over the Double et al. '424 reference has been withdrawn.

Claim Objections

[6] Claims 22, 24, and 25 are objected to because of the following informalities:

[7] Claim 22, the word "*generally*" (line 4) should be removed, consistent with original

Claims 1, 9, and 16, to leave no ambiguities as to the symmetrical scope of the present invention.

Claim 23 is dependant on objected claim 22.

[8] Claim 24 should contain the word through before "*a radially outwardly*" on line 3, and the term "*generally*" (line 4) should be removed, consistent with original Claims 1, 9, and 16, to leave no ambiguities as to the symmetrical scope of the present invention. The word either should be inserted before "*one*" (line 7), in order to clearly distinguish the capabilities of the present invention over the crowded one-sided prior art that still reads on the limitation "*receiving one of [two opposed end portions]*".

[9] Claim 25, the word "*generally*" (line 4) should be removed, consistent with the original Claims 1, 9, and 16, to leave no ambiguities as to the symmetrical scope of the present invention. The words generally parallel planar should be inserted before "*annular surfaces*" (line 5), in order to keep "*annular surfaces*" within the scope of the invention, and to enable structure as it is not currently clear how the annular surfaces circumscribe the body portion. The words "*said one of said*" (line 8) should be replaced with either one of said, in order to clearly distinguish the capabilities of the present invention over the crowded one-sided prior art that still reads on the limitation "*receiving one of [two opposed end portions]*". Annular surfaces of a flange that are not generally parallel planar are not consistent with the symmetrical scope of the present invention. For example, Baumle et al. US-3,213,914 teaches a generally midway flange having generally parallel (non-planar) annular surfaces (65,76) on a flange portion.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

[10] The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

[11] Claims 21, 24, and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As for claim 21, there is no antecedent basis or any structural limitations defining "*said flange portion*." Also, the location of the flange portion with respect to the body portion is not disclosed.

As for claim 24, it is not clear whether the bore extends through "*a radially outwardly inclined surface*", and/or where the radially outwardly inclined surface is located.

As for claim 25, it is not clear how the "*annular surfaces*" (line 5) circumscribe the body portion.

Allowable Subject Matter

[12] Amended claims 1, and 3-20 are allowed. The prior art teaches clinch-type nuts symmetrical along and about the longitudinal axis of the bore to eliminate orientation and facilitate loading and feeding into hopper mechanisms (see US-4,574,473 Sawdon). The prior

art also teaches annular surfaces and concentric features so that no special orientation is needed (See Baumle US-3,213,914 Col 1: lines 50-55).

However, the prior art does not teach a two-sided symmetrical clinch-type female fastener where the center flange portion has generally parallel planar annular surfaces (see US-4,574,473 Sawdon shows non-annular, i.e., non-circular surfaces on flange portion 22). The prior art does not teach the outwardly tapered portions on both sides of a clinch-type nut.

As stated in the previous Office action, independent claim 9 is allowable, as it requires radially outwardly inclined generally frustoconical surfaces (i.e., 'piercing' or 'clinching' surfaces) on *both* opposed end portions; therefore, claims 9-15 are distinguished from asymmetrical prior art having only a single radially outwardly inclined generally frustoconical surface on *one* side. The generally frustoconical surfaces are interpreted consistent with the instant specification and drawings.

Amended claim 16 is allowed because the prior art does not teach an annular (i.e., circular) outer peripheral portion on conventional clinch-type female fasteners that are symmetrical along and about a longitudinal axis. Sawdon US-4,574,473 teaches a symmetrical clinch-type female fastener having square periphery. Double et al. 3,187,424 teaches an 'H'-shaped periphery deformed in the same manner, but doesn't meet the '*midway*' limitation.

[13] Claims 22 and 23 are objected to, but would be allowable if rewritten to overcome the objections set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

As it is currently written, claim 22 reads over previously cited prior art Double et al. 3,187,424, because the reference does not show parallel planar *annular* surfaces that fully surround the body portion.

As it is currently written, claim 22 reads over newly cited prior art Clark US-264,626. Clark teaches a midway flange, opposed ends, radially spaced grooves, and a tapered portion (h), but does not teach an inwardly tapered annular outer peripheral portion.

As it is currently written, claim 22 reads over newly cited prior art Sawdon US-4,574,473 (see Sawdon Figures 2 and 3). Sawdon teaches a symmetrical clinch-type female fastener having symmetry both along and about the longitudinal axis of the bore, as well as a middle flange portion (12) having tapers (22), grooves (near 20), and planar surfaces; however, the planar surfaces of the flange portion taught by Sawdon are not annular (i.e., circular continuously surrounding).

As it is currently written, claim 22 reads over newly cited prior art Muller US-4,724,610. Muller teaches all of the limitations of instant claim 22, except for the plurality of spaced radial grooves.

[14] Claims 24 and 25 are objected to, but would be allowable if rewritten to overcome the objections set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

In summary, the prior art does not teach a clinch/pierce nut having a midway flange with grooves on both sides being deformed toward a panel, wherein the fastener has an annular (i.e.,

circular continuously surrounding) peripheral portion, and wherein either of the opposed ends can be received in a panel opening.

Examiner's Suggestions

[15] Claim 21 would be allowable if re-written to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph by defining "*said flange portion*" by adding:

, a radial flange portion integral with said body portion midway between said opposed ends having generally parallel planar annular surfaces on opposed sides of said radial flange portion surrounding said body portion and an inwardly tapered annular outer peripheral portion,

after "*said opposed ends*" and before "*and clinching surfaces.*" This definition is found in previously submitted and currently allowed Claim 1, and is the subject matter that was originally objected to, but held as allowable in the first Office action dated 27 August 2004. The prior art does not teach clinch/pierce nuts with both a midway flange and tapered radially outwardly surfaces on both opposed ends.

Conclusion

[16] Claims 1, and 3-25 are pending.

Claims 1 and 3-20, are allowed.

Claims 22-23 are objected to.

Claims 21, 24, 25 are rejected.

[17] The newly-cited prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US-264,626 Clark teaches a midway flange, opposed ends, radially spaced grooves, and a tapered portion (h), but does not teach an inwardly tapered annular outer peripheral portion.

US-4,574,473 Sawdon teaches a symmetrical clinch-type female fastener that is symmetrical along and about a longitudinal axis of the bore, having a flange midway. The fastener does not have generally parallel planar annular surfaces to be deformed toward a panel so as to create a bearing surface.

US-2,238,488 Foskett teaches a fastener made of a deformable metal, having a central flange and two end portions with frustoconical surfaces. The fastener does not have a taper on the flange portion, and is meant to be used for one side only.

US-359,394 Winniatt (Figure 4) teaches a metal body (I) of identical structure;

US-4,724,610 Muller Figures 1 and 2 teaches a similar method and fastener. The female fastener includes a body portion (1) having opposed end portions (3,8), a bore (7) extending through said body portion (1) through said opposed end portions (3,8) and a radially outwardly inclined surface (one of 9, 4, or periphery of 5), and a radial flange portion (5) integral with said body portion generally midway between said opposed end portions (3,8), said method comprising the following steps:

- receiving one of said end portions of said body portion of said self-attaching female fastener through an opening in a panel;
- deforming an annular panel portion surrounding said opening radially inwardly beneath said radially outwardly inclined surface of said body portion.

Muller does not show an annular peripheral portion

[18] Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

[19] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sharp whose telephone number is (703) 305-2693. The examiner can normally be reached on 7:30 am - 5:00 pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (703) 306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ROBERT J. SANDY
PRIMARY EXAMINER

